



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0106; Directorate Identifier 2011-NM-150-AD; Amendment 39-17093; AD 2012-12-13]

RIN 2120-AA64

Airworthiness Directives; BAE SYSTEMS (OPERATIONS) LIMITED Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all BAE SYSTEMS (OPERATIONS) LIMITED Model BAe 146 and Avro 146-RJ airplanes. This AD was prompted by reports of baggage bay fire bottles that can be misassembled such that two squib electrical connectors can be cross-connected. This AD requires a general visual inspection of certain baggage bay fire bottles for correct connection and for the length of the wiring loom, modification of the wiring loom to certain squib connectors, and corrective actions if necessary. We are issuing this AD to detect and correct excessive wiring loom length and improper connection of the squib connectors, which in conjunction with a fire in one of the baggage bays, could result in the fire extinguishing agent being discharged into a wrong compartment and consequent damage to the airplane.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF

PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at

<http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on February 8, 2012 (77 FR 6520). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

The baggage bay fire bottles of certain BAe 146 and AVRO 146-RJ aeroplanes can be misassembled such that two squib electrical connectors can be cross-connected. This has been caused by an error in the baggage bay fire bottle Component Manufacturer Manual (CMM) and by excessive wiring loom length.

This condition, if not corrected and in conjunction with a fire in one of the baggage bays, could result in the fire extinguishant to be discharged into a wrong compartment and consequent potential damage to the aircraft * * *.

In addition to the CMM revision, to address this unsafe condition, BAE Systems developed modifications to reroute the baggage bay fire bottle wiring looms and prevent crossed electrical connections.

For the reasons described above, this [EASA] AD requires the implementation of modifications HCM36250A and HCM36250B to affected aeroplanes.

Required actions include general visual inspections of certain baggage bay fire bottles for correct connection and for the length of the wiring loom, modification of the wiring loom to certain squib connectors, and corrective actions if necessary. Corrective actions include reconnecting the squibs connectors and modifying the loom to proper length. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 6520, February 8, 2012) or on the determination of the cost to the public.

Revised Heading and Wording for Credit Paragraph

We have revised the heading and wording for paragraph (h) of this AD. This change does not affect the intent of that paragraph.

Conclusion

We reviewed the available, and determined that air safety and the public interest require adopting the AD with the changes described previously--except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 6520, February 8, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 6520, February 8, 2012).

Costs of Compliance

We estimate that this AD will affect 1 product of U.S. registry. We also estimate that it will take about 6 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$170 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operator to be \$680 per product.

In addition, we estimate that any necessary follow-on actions would take about 3 work-hours and require parts costing \$170, for a cost of \$425 per product. We have no way of determining the number of products that may need these actions.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on

aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM (77 FR 6520, February 8, 2012), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

2012-12-13 BAE SYSTEMS (OPERATIONS) LIMITED: Amendment 39-17093.

Docket No. FAA-2012-0106; Directorate Identifier 2011-NM-150-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to BAE SYSTEMS (OPERATIONS) LIMITED Model BAe 146-100A, -200A, and -300A airplanes, and Model Avro 146-RJ70A, 146-RJ85A, and 146-RJ100A airplanes; certificated in any category; all serial numbers, on which modification HCM30480A, HCM30480B, HCM30480C, HCM30480D, HCM30480E, or HCM30480F are embodied.

(d) Subject

Air Transport Association (ATA) of America Code 26: Fire Protection.

(e) Reason

This AD was prompted by reports of baggage bay fire bottles that can be misassembled such that two squib electrical connectors can be cross-connected. We are issuing this AD to detect and correct excessive wiring loom length and improper connection of the squib connectors, which in conjunction with a fire in one of the baggage bays, could result in the fire extinguishing agent being discharged into a wrong compartment and consequent damage to the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Inspection/Modification

Within 3 months after the effective date of this AD, do the actions specified in paragraphs (g)(1), (g)(2), (g)(3), (g)(4), (g)(5), and (g)(6) of this AD.

(1) Do a general visual inspection of baggage bay fire bottle WB8 having part number (P/N) 473997-1 for correct connection of the squib connectors identified in paragraphs (g)(1)(i) and (g)(1)(ii) of this AD, in accordance with paragraph 2.C.(3) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011. If any items are found improperly connected, before further flight, reconnect the squib connectors properly, in accordance with paragraph 2.C.(3) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

(i) Squib connector WB8P1 (S1446-004A) and cartridge P/N 446307.

(ii) Squib connector WB8P2 (S1446-004D) and squib P/N 446290.

(2) Do a general visual inspection of the length of the wiring loom at the squib connector WB8P2 for excessive length that could cause the connector to become cross-connected with squib connector WB8P1, in accordance with paragraph 2.C.(4) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

If excessive length is found, before further flight, modify the loom, in accordance with paragraph 2.C.(4) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

(3) Do a general visual inspection of baggage bay fire bottle WB7 having P/N 473996-1 for correct connection of squib connectors identified in paragraphs (g)(3)(i) and (g)(3)(ii) of this AD, in accordance with paragraph 2.C.(5) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011. If any items are found improperly connected, before further flight, reconnect the squib connectors properly, in accordance with paragraph 2.C.(5) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

(i) Squib connector WB7P1 (S1446-004A) and cartridge P/N 446307.

(ii) Squib connector WB7P2 (S1446-004D) and squib P/N 446290.

(4) Modify the wiring loom to squib connector WB7P2, in accordance with paragraphs 2.C.(6)(a) and 2.C.(6)(c) of the Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

(5) Modify the wiring loom to squib connector WB7P1, in accordance with paragraph 2.C.(6)(b) of the Accomplishment Instructions of BAE SYSTEMS

(OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B,
Revision 4, dated January 7, 2011.

(6) Install modification HCM36250B, in accordance with paragraph 2.C.(7) of the
Accomplishment Instructions of BAE SYSTEMS (OPERATIONS) LIMITED
Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

Note 1 to paragraph (g) of this AD: Guidance for test and close-up procedures can
be found in paragraphs 2.D. and 2.E. of the Accomplishment Instructions of BAE
SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin
SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

(h) Credit for Previous Actions

This paragraph provides credit for installing the modification HCM36250A
required by paragraphs (g)(1), (g)(2), (g)(3), (g)(4), and (g)(5) of this AD, if those actions
were performed before the effective date of this AD using the service information
specified in paragraphs (h)(1) through (h)(4) of this AD.

(1) BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin
SB.26-077-36250A, dated September 4, 2009.

(2) BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin
SB.26-077-36250A, Revision 1, dated September 11, 2009.

(3) BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin
SB.26-077-36250A.B, Revision 2, dated October 14, 2010.

(4) BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin
SB.26-077-36250A.B, Revision 3, dated November 23, 2010.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1175; fax (425) 227-1149. Information may be e-mailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(j) Related Information

Refer to MCAI European Aviation Safety Agency Airworthiness Directive 2011-0065, dated April 7, 2011; and BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011; for related information.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise.

(i) BAE SYSTEMS (OPERATIONS) LIMITED Modification Service Bulletin SB.26-077-36250A.B, Revision 4, dated January 7, 2011.

(3) For BAE SYSTEMS (OPERATIONS) LIMITED service information identified in this AD, contact BAE SYSTEMS (OPERATIONS) LIMITED, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; telephone +44 1292 675207; fax +44 1292 675704; e-mail

RAPublications@baesystems.com; Internet

<http://www.baesystems.com/Businesses/RegionalAircraft/index.htm>.

(4) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on June 7, 2012.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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